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ABSTRACT

The systems approach used at the University of Michigan to prepare vocational/career educators of handicapped and nonhandicapped students is described. Activities conducted in each of three stages of the model--planning, implementation, and evaluation are described. Program planning is seen to include identification of target population, review of current literature, and identification of research design. Program implementation aspects include program development, research and publications, and leadership training. Program evaluation is intended to provide impact data. Three assessment activities are described: 1) an evaluation of statewide inservice workshops for special needs personnel; 2) a statewide needs assessment for administrators, supervisors, and direct service personnel dealing with special needs personnel; and 3) an evaluation of the competency statements for a combined master's degree program in vocational/special education. (CL)

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THE ROLE OF NEEDS ASSESSMENT IN THE PROGRAM DEVELOPMENT PROCESS

paper presented at
National Conference
Council for Exceptional Children

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INTRODUCTION

In recent years, an increasing amount of attention has been given to the need to provide professional development training for educators. The passage of three major pieces of legislation, namely: 1) Title II of the Educational Amendments of 1976 (P.L. 94-482): 2) The Education of all Handicapped Children Act of 1975 (P.L. 94-142): and 3) The Rehabilitation Act Amendments of 1974 (P.L. 93-112), have brought about a number of changes in the educational system. Therefore it has become crucial for educators to be presented with sound realistically planned inservice and activities to help them cope with these ongoing changes.

Because of these major changes, a new group of personnel has emerged. This group of teachers is referred to as special needs personnel. These are teachers who have to serve the dual role of providing vocational/career training to special needs students, i.e., handicapped, disadvantaged and persons of limited English-speaking ability. Researchers such as Yung et al, 1979, Crawford, 1979, Moorman, 1980, and Bowen, 1980 have attested to the need to provide professional development training to vocational teachers involved in serving the vocational training needs of students with special needs. In addition, these same researchers have acknowledged the role of special educators who are faced with the task of providing career and employability training to their exceptional students.

Recognizing the need to prepare appropriate preservice and inservice activities for Special Needs Personnel, the staff of the Special Education and Occupational Education Programs became increasingly involved in program development. In that light, a number of

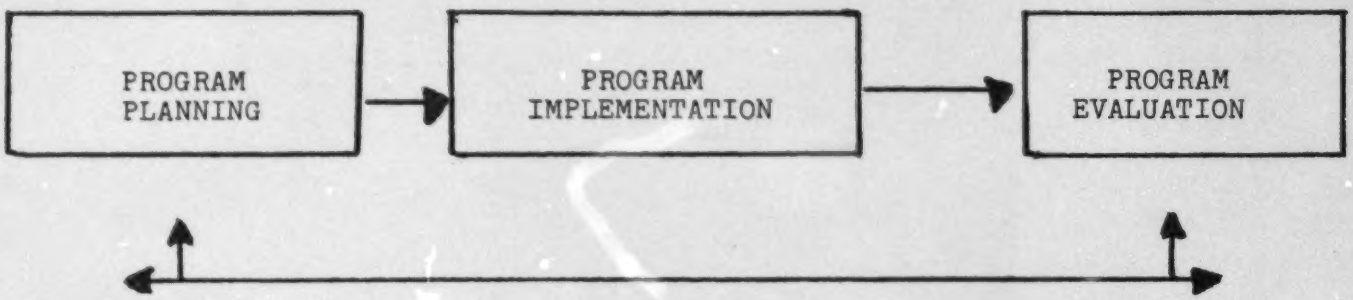
systems approaches were examined. For example, Eraut's 1967 model cited ten steps: selection of objectives design alternatives, collect data, build models, weight/cost versus effectiveness, test, for sensitivity, question assumptions, re-examine objectives, open new alternatives and formulate problems. In a similar vein, Ofiesh (1969) proposed a five step approach: specification of behavioral objectives, assessment of student repertories, development of instructional strategies, testing and revision (validation) and packaging and administering a validated learning system.

In essence, a system is a sum total of a comples unit, working independently and together to serve a common purpose (Littlejohn,1981). After a careful examination of the preceeding models and others developed by Hatfield, 1969 and Wenrich and Wenrich, 1974, it was apparent that if properly organized, systems continuously reorganize to meet new problems, to examine new complexities and tc utilize ideas and information in a renewal process. With these thoughts in mind, a three-stage model was developed as a means of providing professional development training to special needs personnel.

Figure I, based on Hoellein's 1979 systems model, gives an overview of the approach adopted at the University of Michigan. The model includes three stages: Stage I-Planning; Stage II-Implementation and Stage III - Evaluation. This portion of the article will deal with those activities conducted in each stage.

Figure I -- A General Systems Approach

This three stage general systems model was selected as an organizational guide to aid in providing a model for the development of teacher-training consortiums. The three stages of the model are:



Administrator's Guidebook, Center for Vocational Personnel Preparation, Indiana University of Pennsylvania, 1979

THE UNIVERSITY OF MICHIGAN PROFESSIONAL DEVELOPMENT

I. Program Planning

This stage includes the development of overall goals and measureable objectives; the identification of problems from documented needs; the identification of tasks to be completed; and the identification of possible strategies and tools for attaining the objectives. Each of the planning components should be directed toward meeting the needs of the training institutions, teachers and administrators, and students.

-Overall goals, guidelines
-Administrative organization
-State department coordination
-Advisory committee development
-Identification of issues
-Identification of target population
-Needs assessment
-Cooperation w/local agencies
-Cooperation w/out-state resources
-Review current literature
-Identification of research design
-Develop implementation plan

II. Program Implementation

This stage involves the installation of the program and the maintenance and coordination of the program components. This tentative listing of subjects to be addressed in the program development phases serve to provide a comprehensive and appropriate program designed to meet the individual and institutional needs of educators, teachers, and students.

-Pre-service
-In-service
-Inter-agency agreements
-Materials: development and dissemination

-Program development
-Publicity and information disbursement
-Budgetary and funding resources
-Research and Publications
-Intra/Inter-state communications
-Leadership training

III. Program Evaluation

The program evaluation stage, is divided into two types of evaluation--process and product. Process evaluation is ongoing assessment of the overall program that permits periodic decisions regarding the adequacy of the programs and services is that needed modifications and revisions can be made while the program is in progress. Process evaluation may be conducted on a course, semester, or yearly basis to provide information for program decisions.

Product evaluation is viewed as a terminal activity to provide impact data. Institution, teacher, and student follow-up information, employer follow-up data, and cost/benefit analysis are the primary methods utilized in product evaluation. On the basis of the product evaluation, the impact of individual programs and services and the overall program can be determined to provide a baseline for decisions regarding future program direction and planning. The product evaluation should be designed to provide the information necessary to make program planning decisions such as: 1) continue present program; 2) make specific modifications and revisions of program; or 3) terminate the program.

a) Process: This stage involves the monitoring of progress in achieving program and individual program objectives and in utilizing program alternative to achieve objectives.

b) Product: This stage includes evaluation of impact of program; cost/benefit analysis; and information for revision of program.

ASSESSMENT ACTIVITIES AND RESULTS

During the process of examining both of the systems approaches, it was noted that assessment was considered to be a crucial part of any program development activity. Therefore, a decision was made to conduct a series of assessment activities, namely: 1) An Evaluation of State-wide Inservice workshops for Special needs Personnel; 2) A state-wide needs assessment for Administrators, Supervisors and Direct Service Personnel dealing with Special needs Personnel and 3) An Evaluation of the Competency Statements for a combined Masters Degree Program in Vocational/Special Education.

The remaining portion of this article pertains to each of those assessment activities conducted. The results of these activities served as a basis for both inservice and preservice training activities for Special Needs Personnel.

AN EVALUATION OF STATE-WIDE INSERVICE WORKSHOPS FOR SPECIAL NEEDS PERSONNEL

With the assistance of a grant received from the Michigan Department of Education, a series of Competency - based Statewide Inservice, workshops were planned, implemented and evaluated for 1250 Special Needs Personnel throughout the State. One important aspect of the planning stage was the establishment of regional planning committees. As a means of assessment, the planning committee members were requested to identify areas of training that would be useful to special needs personnel in their region.

Once these needs have been identified, other areas were added, based on the State Departments previously stated objectives. As shown in Table I, participants, were most interested in the following topics: 1) Teaching Strategies to Develop Self-Esteem;

2) Bilingual Student Issues; 3) Job Stress/Burnout; 4) Deaf Students; 5) The Handicapper Experience and 6) Supportive Services.

It should be noted, that those workshop sessions receiving the highest ratings were approximately the same as those identified by the Planning Committees. Table II gives an overview of the overall satisfaction with each of the regional workshops. Based on the evaluation results, the important role of conducting or needs assessment was again confirmed.

TABLE I

Means of Evaluation Dimensions
Across Six Mini-Sessions with Highest Overall Ratings

Titles of Mini Session	Workshop	(Item 5) Overall Consideration		(Item 1) Perceived Organization		(Item 2) Clarity of Objectives		(Item 3) Ideas/ Activities		(Item 4) Scope Coverage	
		$\bar{X}$[a]	n[b]	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$	n
Teaching Strategies to Develop Self-Esteem	III	6.64*	64	6.77*	65	6.75*	65	6.75*	64	6.54*	65
Teaching Strategies to Develop Self-Esteem	IV	6.82*	11	7.00*	65	6.82*	11	6.82*	11	6.64*	11
Bilingual Student Issues	IV	6.75*	8	6.88*	8	6.88*	8	6.75*	8	6.75*	8
Job Stress/Burnout	IV	6.40*	10	6.64*	11	6.50*	10	6.73*	11	6.45*	8
Deaf Students	IV	6.36*	11	6.36*	11	5.91	11	6.27	11	6.36*	11
The Handicapper Experience	III	6.35*	57	6.33	58	6.40*	58	6.28	58	6.10	58
Supportive Services	IV	6.33*	12	6.25	12	6.27	11	6.50*	12	6.08	12

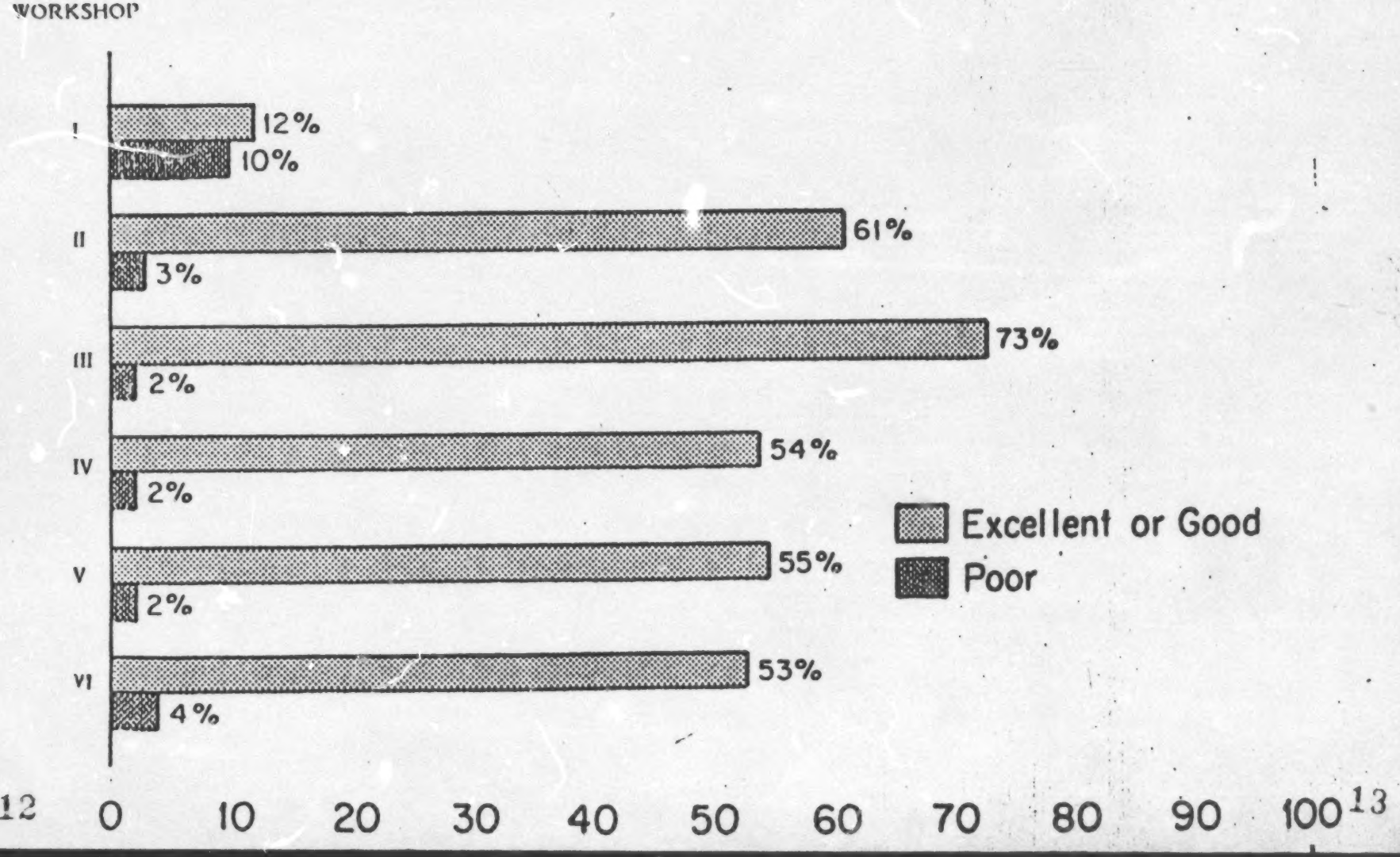
* Within the highest quartile on the dimensions

[a] Mean score for this dimension

[b] n = number of respondents

TABLE II

Overall Satisfaction



Statewide Needs Assessment for Administrators, Supervisors and Direct Service Personnel

As a means of determining those areas which should receive high priority in preservice training programs, a Statewide needs Assessment was conducted with approximately 900 Vocational/Special Needs Personnel. In order to determine importance and confidence ratings for Michigan Personnel, the instrument developed by the University of Arkansas was utilized. According to Yung, et al. (1979), those tasks with high mean scores in terms of importance should receive high priority in preservice, training programs. On the otherhand, those tasks receiving a low confidence rating should be concentrated on inservice training programs.

As shown in Table III, a rank ordering of means revealed those items ranked as the highest and lowest perceived training needs for Michigan respondents highest ranked items on the importance dimension concluded such areas as: 1) establishing appropriate attitudes; 2) developing positive attitudes; and 3) motivation and reinforcement. Lowest ranked items included: 1) Conducting task analysis; 2) considering alternative programs and 3) conducting and interpreting follow-up studies.

In an attempt to determine what areas personnel felt confident in performing, the following were among the top ranked items: 1) establishing attitudes; 2) referrals to counselors and 3) ccoperation with support personnel. As far as those items respondents felt the least amount of confidence in performing, the following were identified: 1) Analyzing occupational interest; 2) identifying instructional materials and 3) assisting enployers and supervisors work effectively with special needs students.

TABLE III

Ten Highest and Lowest Perceived Needs of Total Population
For Both the Importance and Confidence Dimensions

Importance Dimension		Confidence Dimension	
Top Ten Ratings			
Item	Mean Score	Item	Mean Score
Establish attitudes	4.179	Establish attitudes	4.167
Develop positive attitudes	4.687	Referral to counselors	4.044
Motivate students	4.540	Cooperate support personnel	3.883
Identify services	4.476	Maintain student records	3.845
Cooperate support personnel	4.444	Identify support personnel	3.788
Coordinate job placement	4.307	Develop positive attitudes	3.626
Identify support personnel	4.307	Collaborate with others in planning	3.339
Assist employers and supervisors	4.306	Motivate students	3.540
Determine materials, methods etc.	4.301	Make information available	3.450
Determine career objectives	4.299	Identify community, government resources	3.418
Lowest Ten Ratings			
Conducting task analysis	4.006	Analyzing occupational interests	3.096
Considering alternative programs	3.988	Identifying instructional activities	3.094
Conducting follow-up studies	3.970	Assisting employers and supervisors	3.037
Integrating OSHA, safety and health regulations	3.963	Considering alternative programs	3.100
Develop instructional materials	3.952	Developing IEP	3.006
Identify community, governmental resources	3.928	Conduct task analysis	3.000
Understand legislation	3.873	Integrate OSHA, safety and health regulations	3.000
Administer diagnostic assessment	3.873	Develop instruction materials	2.873
Identify audio visual materials	3.724	Identify learning diffiulties	2.790
Establish program advisory committees	3.642	Administer diagnostic assessment	2.697

Once the highest and lowest ranked items were determined, the differences in training needs were divided into upper and lower quantities. This enabled us to determine differences in four categories: high importance/high conficence; high importance/low confidence; low importance/ high confidence and low importance/low confidence;(See Table IV). These findings clearly indicated areas where preservice and inservice training is needed in the State of Michigan. Therefore, the role of the assessment process proved to be invaluable to our present and future professional development activities.

An Evaluation of the Competency Statements for a Combined Masters Degree Program

Based on funding received from the United States Department of Education, the staff of the Occupational and Special Education Programs at the University of Michigan developed a 30 hour Masters Degree Program in Vocational/Special Education. Thirteen competency statements were identified as the basis for the combined program.

During the second year of program development, an assessment of Vocational, Special and Special Needs personnel educators was undertaken. The purpose of this assessment activity was to determine: 1) the percentage of time personnel presently spend addressing each of the competencies; 2) The percentage of time personnel would like to spend on each competency and 3) the degree to which respondents felt prepared to address each of the competencies, (See Table V).

Data analysis included a straight-forward ranking ordering of all competencies in descending order. As revealed in Table V, the respondents ranked the following among the top three in terms of the amount of time they actually spend addressing the identified competencies: 1) program implementation; 2) sex-role stereotyping

TABLE IV

Summary of Upper/Lower Quartile Ratings for Three Groups of Respondents on the Importance and Confidence Dimension

Ratings	Administrators	Supervisors	Direct Service
High Importance/Low Confidence*	Determine materials, methods, etc.	None	Coordinate job placement
High Importance/High Confidence	Establish attitudes Coordinate job placement Cooperate with personnel-student placement	Establish attitudes Develop positive attitudes Motivate students Cooperate with supportive personnel Identify services Identify support personnel	Establish attitudes Develop positive attitudes Motivate students Cooperate with supportive personnel Identify support personnel Referrals to counselors
Low Importance/High Confidence	Maintain student records Establish program advisory committees	Identify community, governmental agencies Maintain student records	None
Low Importance/Low Confidence	Develop techniques for communicating with student Conduct task analysis Develop instructional materials Administer diagnostic assessment	Develop instructional materials Conduct task analysis Integrate OSHA, safety & health regulations Administer diagnostic assessment Establish program advisory committees	Revise instructional program Develop instructional materials Integrate OSHA, safety & health regulations Conduct and Interpret follow-up studies

*Highlighted as major inservice/preservice training need.

Table V

Rank Ordering of Competenais Based on Mean Time and Corelation Coefficients between Actual Time Spent ($\bar{x}_1$) and °Preparedness, and Ideal Time to Spend ($\bar{x}_2$) and °Preparedness for Vocational, Special Education, and Special Need Educators

	ACTUAL		IDEAL		Preparedness			
	Rank Order	Mean Time ($\bar{x}_1$)	Rank Order	Mean Time ($\bar{x}_2$)	Rank Order	Mean Time ($\bar{x}$)	r_1	r_2
Legislation	8	(1.597)	9	(1,456)	10	(2.953)	.44 ****	.4 ***
Disabitity Characteristics	9	(1.515)	11	(1.294)	8	(3.125)	.24 **	.1
Least Restrictive Program Options	10	(1.478)	10	(1.427)	9	(3.057)	.33 ****	.2 *
Interdisciplinary/ Interagency	11	(1.435)	8	(1.491)	12	(2.906)	.41 ****	.1
Assessment	7	(1.668)	7	(1.597)	7	(3.173)	.34 ****	.1
Individualized Plans	4	(1.990)	6	(1.975)	3	(3.600)	.41 ****	.1
Program Development	2	(2.332)	1	(2.510)	2	(3.771)	.37 ****	.1
Program Implementation	1	(2.436)	2	(2.436)	1	(3,885)	.22 **	.1
Instructional and Program Evaluation	3	(2.042)	4	(2.071)	4	(3.577)	.27 ***	.1
Linguistic/Cultural Differences	13	(0.489)	13	(0.665)	13	(2.058)	.43 ****	.1
Sex-Role Stereotyping	12	(0.997)	12	(1.112)	11	(2.914)	.44 ****	.3 ***
Staff Development/ Consultation	5	(1.987)	3	(2.133)	6	(3.453)	.46 ****	.4 ***
Professional Development	6	(1.971)	5	(2.076)	5	(3.576)	.31 ***	.2 **

*< .1

***< .01

**< .05

****< .001

and 3) linguistic/cultural differences were among the lowest ranked.

The three highest ranked items in terms of ideal time to address each competency revealed that respondents would like to spend the majority of their time on such task as: 1) program development; 2) program implementation and 3) staff development. On the other-hand the following were among the lowest ranked items: 1) disability characteristic's 2) sex-role stereotyping and 3) linguistic/cultural differences.

When examining those competencies Personnel felt most prepared to perform, the following were ranked the highest: 1) program implementation; 2) program development and 3) individualized plans. Lowest ranked items included: 1) sex-role stereotyping; 2) interdisciplinary/interagency and 3) linguistic/cultural differences.

It was noted that respondents were consistent in indicating those competencies they would like to spend more or less time performing. It was also clear what areas respondents felt prepared to perform. Based on the results of this assessment, staff was able to determine areas to concentrate on in present and furture preservice and inservice training activities.

Recommendations

The systems approach used in this study could be of use to educators providing professional development training to special needs personnel. Therefore, the following recommendations are suggested for consideration for future studies.

1. Conduct further research to determine the degree of overall satisfaction with preservice and inservice activities, and the utility of the systems approach;
2. Consider the use of planning committees throughout the planning and implementation process as a form of assessment;
3. Develop a comprehensive management plan outlining activivities to be conducted throughout the training process.
4. Utilize needs assessment as a means of determining differences in training needs according to roles.
5. Conduct needs assessment activities to determine required job tasks and new areas of interest of the target population.

Selected References

Berman, P. and McLaughlin, M.W. "Implementation of Educational Innovation." Education Forum, 1976, 40, 344-70

Bowen, Ella M. "An Analysis of the Teacher Education Needs of Vocational/Special Education Personnel." Action in Teacher Education, Volume II, No. 3, Summer, 1980.

Crawford, G.B. "Perceived Inservice Needs of North Dakota Vocational Teachers Concerning Disadvantaged/Handicapped Students." The Journal of Vocational Education Research. Summer, 1979, Volume 4, No. 3, pp. 15-16 .

Eraut, Michael R. "An Instructional Systems Approach to Course Development." Audio-Visual Communication Review. No. 5, (Spring, 1967), p.75.

Hatfield, Robert C. "Designing and Instructional Strategy." Educational Technology, No.9. (February, 1969), p.27.

Hoellein, Robert H. Vocational Administrator's Handbook: A Systems Approach to Mainstreaming Special Needs Students in Vocational Education. (Indiana, Pa: Center for Vocational Personnel Preparation; Indiana University of Pennsylvania, 1979.)

Littlejohn, J. Perceptions of Directors Regarding the Implementation of Graduate Level Combined Preservice Vocational/Special Education Programs. A Ph.D. Dissertation, Ann Arbor, Michigan: The University of Michigan, 1981.

Markel, G and Bower, Ella M. Vocational Education for the Handicapped: Models for preparing Personnel. 1981.

Moorman, J.W. Vocational Education for the Handicapped: A Study of Attitudes. The Journal for Vocational Special Needs, 1980 2 (3), p.22.

Ofiesh, Gabriel D. "The New Education and the Learning Industry," Educational Leadership, 26 (May, 1969), p.29.

Wenrich, Ralph, and Wenrich, L. William. Leadership in Administration of Vocational and Technical Education. (Columbus, Ohio: Charles E. Merrill Publishing Company, 1974), pp. 148-163).

Yung, K., Jennings, J. and Haynie, R. "Assessment of Needed Competencies of Vocational Teachers of Special Nees Students in the State of Arkansas," The Journal of Vocational Special Needs Education, Volume 1, no. 2, January, 1979.